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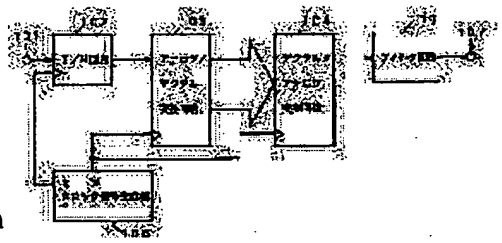
(54) FREQUENCY CONVERTER

(57)Abstract:
PURPOSE: To miniaturize the device and to reduce energy consumption by sampling an input signal at the cycle of a frequency lower than the double of the lowest frequency of the input Signal, converting the input signal to a digital signal and integrating it into a digital IC.
CONSTITUTION: A signal not containing a low frequency component is inputted to an input terminal 101 and temporarily held at a trace/hold (T/H) circuit 102. A clock signal, whose frequency is lower than the double of the lowest frequency of the input signal, is generated by a clock signal generator 106. This control clock signal (1) is supplied to the T/H circuit 102, and a sampling clock signal (2) a little delayed rather than the control clock signal (1) is supplied to an A/D converter 103 and a D/A converter 104. Thus, the input signal is sampled, and A/D converted outputs are turned to the amplitude data of frequency converted signals. By integrating this device into the digital IC, the device can be miniaturized, and the energy consumption can be reduced.



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